

National Park Service
U.S. Department of the Interior



Pea Ridge National Military Park
Arkansas

PEA RIDGE NATIONAL MILITARY PARK VEGETATION MANAGEMENT PLAN AND ENVIRONMENTAL ASSESSMENT FINDING OF NO SIGNIFICANT IMPACT

INTRODUCTION

In compliance with the National Environmental Policy Act (NEPA) and implementing regulations published by the Council on Environmental Quality and the Department of the Interior, the National Park Service (NPS) prepared an environmental assessment (EA) for implementing a vegetation management plan at Pea Ridge National Military Park (the park) in Pea Ridge, Arkansas. In addition, the NPS is using the EA to document compliance with Section 106 of the National Historic Preservation Act (NHPA) pursuant to 36 Code of Federal Regulations (CFR) Part 800.8(c). This Finding of No Significant Impact (FONSI) describes the alternative the NPS has selected for implementation, provides the rationale for its selection, and explains why it will not have significant impacts on the human environment. This FONSI concludes the NEPA and Section 106 of the NHPA compliance processes. As such, this plan, as written, has satisfied all of the requirements for compliance and will be implemented as funding and personnel allow.

BACKGROUND

The park was established by Congress on July 20, 1956 to “preserve and protect the landscapes and resources associated with the Battle of Pea Ridge” and “interpret the battle as an integral part of the social, political, and military history of the Civil War” (70 Statute (Stat.) 592). The Battle of Pea Ridge (also known as the Battle of Elkhorn Tavern) in northwest Arkansas was the largest Civil War battle west of the Mississippi River and essentially secured northwest Arkansas and the state of Missouri for the Union. The name of the battle was derived from the nearby city of Pea Ridge, supposedly named for the wild “turkey peas” or “hog peanuts” that were harvested by the indigenous American Indian tribes.

The park’s General Management Plan (GMP), completed in 2006, set the goals for landscape management at the park. The overarching goals of the GMP are “returning the battlefield landscape to the 1862 appearance” and “providing views of the battlefield that convey the open space and woodlands present at the time of the battle.” The NPS has completed the

combined Vegetation Management Plan and Environmental Assessment (plan/EA), the purpose of which is to design ways to adjust and/or establish the vegetation patterns that represent the look and feel of the 1862 landscape. The proposed plan is being prepared to facilitate implementing the park's landscape management goals outlined previously in the park's GMP.

Natural and man-made changes to the landscape of the park area and environs have occurred over the past 150 years since the time of the battle. A vegetation management plan is needed to provide the framework necessary to achieve the goals in the GMP, primarily to return the battlefield landscape to its 1862 appearance. The plan/EA is also needed to allow the NPS to establish, and then implement, methods by which to maintain those vegetation patterns to maximize benefits to natural and cultural resources.

This FONSI and the plan/EA constitute the record of the environmental impact analysis and decision-making process associated with selecting and implementing the selected alternative, which defines the management and treatment of the vegetative landscape at the park. The selected alternative includes measures to protect cultural resources, improve visitor enjoyment, and provide long-term conditions necessary to sustain natural and cultural resources. The selected alternative was selected after careful review of resource and visitor impacts and public comment.

This document records 1) a FONSI as required by NEPA and concurrent compliance with Section 106 of the NHPA, and 2) a determination of no impairment as required by the NPS Organic Act of 1916 (see Attachment A).

ALTERNATIVES CONSIDERED

The plan/EA considered three action alternatives and a no action alternative. These alternatives are discussed below.

Alternative A – No Action Alternative

The no action alternative provides “a baseline of existing impact continued into the future against which to compare impacts of action alternatives.” Under the no action alternative, the present level of use, management, interpretation, operations, and maintenance would continue. As identified in the 2006 GMP, “park management would retain and enhance a substantial portion of the historic character of the battlefield landscape.” Current management and maintenance activities would continue over time, as park funds allow. Current management activities include the following:

- Thinning the open woodlands (345 acres) and forests (2,625 acres)
- Encouraging natural reforestation in areas that were historically forested (337 acres) but are currently open fields
- Mowing existing nonnative (fescue) grassland areas (463 acres of fields and 30 acres of maintenance mowed areas)

- Maintaining the wildland-urban interface (WUI) by conducting prescribed burns, thinning cedars from the current 759 acres to 4 to 10 acres, and spraying exotic species
- Continuing the implementation of an exotic pest management plan
- Reestablishing orchards at Elkhorn Tavern and Ford Farm (6 acres)

Under the no action alternative, the least change to the existing vegetative landscape would occur. Although the management items listed above would continue to be implemented slowly over time, the natural and man-made changes that have altered the landscapes and resources associated with the Battle of Pea Ridge would not be noticeably changed. The health of the vegetation and forests would continue to deteriorate over time due to issues such as a lack of vegetative diversity, the continued spread of invasive species, and impacts from climate change (e.g., permanently drier or wetter conditions); which would reduce the interpretation value and visitor understanding of the battlefield landscape.

Action Alternatives

Components Common to All Action Alternatives

Three action alternatives were determined to meet the park's purpose, need, and objectives for taking action. The following components are actions that were proposed for vegetation management, regardless of which action alternative was selected. Therefore, these components are noted as being common to all action alternatives.

1. Reestablish the range of vegetation that would have existed at the time of the 1862 battle to varying degrees as noted in each alternative. Each vegetation type currently exists to some extent and includes fields, open woodlands, orchards, Arkansas Highlands forest, historic trees, cedar glade-like areas, the Round Prairie, and visitor areas.
2. Reestablish and maintain the historic Round Prairie to the size, form, and general character that would have existed in winter 1862 around the time of the battle (from the current 61 acres to approximately 66 acres), using native species and the species composition that would have existed at the time.
3. Reestablish the historic cedar glade-like areas within the park to reflect the percentage of the forest species that would have existed in winter 1862 around the time of the battle, as well as to reflect the historic distribution of cedar trees and glade-like areas. Remove cedar trees in areas historically free of cedars. Thin existing cedars (a native conifer that is also an invasive species), currently about 18% (759 acres) of the forested areas in the park to less than 1% (about 4 to 10 acres) of the forested areas in the park, to reestablish the historic mix of species. Regenerate previously overgrown cedar forests with other native species typical of mature deciduous woodlands and forests.
4. Preserve currently known historic trees (16 identified), as well as those yet to be identified in ongoing studies. Historic trees are those that date to the period of significance, namely to winter 1862. Documented historic tree species include post oak and white oak. Red oak and black oak may have been present as well. Historic

trees, as well as species that were present circa 1862, would be used to reestablish the native species and increase diversity through recognized silvicultural (e.g., single-tree and/or shelterwood tree¹) methods. Propagation may also be used on a limited basis in size-constrained areas, but will be dependent upon funding and personnel.

5. Exclude nine zones from the plan/EA as these zones will be addressed under the Cultural Landscape Report (CLR) (developed separately). The nine zones include Leetown Hamlet, Elkhorn Tavern, Federal Trenches, East Overlook, Winton Springs, Winton Home, Trail of Tears, Ford Cemetery, and the Cherokee encampment. The United Keetoowah Band of Cherokee Indians also identified areas of interest, shown on Figure 6 in the plan/EA. Other than the areas that overlap CLR areas, the “buffer zones” and vegetation treatments for the Keetoowah areas of interest would remain the same as those identified in the action alternatives, as agreed upon during tribal consultation.
6. Establish a “buffer zone” around sensitive areas such as marshes and wetlands, streams, culturally sensitive areas, and the nine zones to be addressed in the CLR (described in item 5 above). These areas would be avoided during vegetation management activities to prevent impacts on sensitive resources. The minimum buffer zone around sensitive areas would be 100 feet; however, this zone would be increased in areas of high sensitivity (e.g., areas near potential sensitive species habitat), to be determined by park resource specialists on an individual basis.
7. Maintain tree vegetation along the Tour Road in the natural areas only, to have a 5-foot mown edge on either side of the roadbed, and with a clear area of no trees for a minimum 30-foot distance, as measured from the edge of the roadbed (excluding exceptional or historic trees). Trees with limbs overhanging into the 30-foot area would be trimmed to a height of 15 feet.
8. Maintain tree vegetation along hiking trail routes to have a 5-foot-wide by 15-foot-high clear area for the trail to follow. Allow removal of hazard trees within a 65-foot (20-meter) distance from the trail edge (excluding exceptional or historic trees). Historic roads would be maintained to their current width, including shoulders/depressions, and limbs would be trimmed to 15 feet high.
9. Manage fields on an individual basis, according to the management zone in which they are located.
10. Reestablish haying and/or crop leasing to independent farmers or businesses in areas that have agricultural value. The degree of haying and/or crop leasing would vary depending on the vegetation and management techniques proposed for each alternative.
11. Areas that are currently fields, but were historically open woodlands or forests, will be reforested with native species in the patterns and diversity of the historic woodlands and forests (337 acres). Reforestation will take place by planting trees in dry open woodlands (27 acres) and natural reforestation in the remaining 310 acres. Thin open woodlands (currently 345 acres) and dense forests (currently 2,625 acres). Reestablish a total of 900 acres of open woodlands that were absorbed by the expanding forests to resemble the historic character.

¹ The single-tree method is used to obtain a forestwide structure at a small scale where desired stand age and size structure, species composition, and stocking are maintained, whereby a tree of seed-bearing stature/age is selected and the forest around it is managed such that the seeds (acorns) have a proportionally higher success rate for germination. The shelterwood method is similar but a belt or grouping of desired trees is left and the forest around it is managed so that the acorns stand a better chance of germination and recruitment.

12. In the implementation of vegetation management and reforestation, incorporate successional forest practices and other BMPs for vegetation. For example, to help maintain the aesthetic and forest sustainability over time through the different stages of forest recruitment, it may be necessary for the park to plant more trees than were historically present. In addition, current species composition for a given area would dictate the treatment for that area.
13. Incorporate sustainable agricultural practices (where feasible) by allowing rotating crops, haying operations, and other management techniques to sustain cropland and pastureland and to maintain the aesthetics. For areas that were historically designated as “pastureland,” consider using these areas for cropland because these areas were likely fallow cropland in 1862.
14. Maintain existing orchards (at a minimum).
15. Remove the West Overlook tour stop. This tour stop is shown on current park literature and maps, but would be removed or adapted for a different use.
16. Revegetate areas where power lines were removed.

Because these aspects of the alternatives do not differentiate between the action alternatives, the remaining discussion is focused on general recommendations unique to each alternative. A full description of the alternatives is contained in the plan/EA.

Alternative B – Reestablish the Functional Agrarian Landscape

This alternative proposes a literal depiction of the historic landscape of open fields contrasted by surrounding woods that would have existed in winter 1862 around the time of the battle. This alternative would emphasize the cultural nature of the park by reestablishing historic spaces with the specific crops, orchards, pastures, and open woods that would have existed at the time of the battle.

Alternative B would reestablish the historic patterns of open fields and woodlands within the battle grounds and routes and the natural forest using historic species or in-kind species to closely depict the form, function, and aesthetics of the historic vegetation. Under Alternative B, there would be limited flexibility in the vegetation treatments because of the literal translation of the historic landscape.

Alternative C – Establish a Visual Agrarian Landscape (Selected Alternative)

This alternative presents an agrarian and natural landscape that will visually represent the open fields and surrounding woodlands that would have existed in 1862 around the time of the battle. This alternative combines the cultural nature of the park with the natural setting. This will be achieved by incorporating vegetation that is a literal depiction of what was present in 1862 with native grasses and other species, depending upon the management zone in which they are located and other guiding documents, such as the Long-Range Interpretive Plan.

Alternative C allows for broad flexibility in species selection. This alternative reestablishes the historic patterns of open fields and woodlands and the natural forest using in-kind species that depict the form, function, and aesthetics of the historic vegetation, but that will be suited to contemporary conditions (e.g., to accommodate climate change) and maintenance practices. Areas to be restored will be augmented by the Long-Range Interpretive Plan and by interpretive areas within the park.

Under Alternative C, there will be a greater level of flexibility of management regarding the vegetation treatments. This allows for a broader range of natural variability within a vegetation type regardless of the management zone.

A full description of site-specific prescriptive methods with detailed actions for implementation of this alternative can be found in Appendix B of the plan/EA.

Alternative D – Establish a Natural Agrarian Landscape

This alternative proposes a natural agrarian landscape that would incorporate primarily native vegetation to visually represent the openness of the fields and surrounding woods that would have existed at the time of the 1862 battle. This alternative focuses on the health of the forests and landscape and uses a range of hardy and indigenous species, not historic crops or species, to visually and structurally represent the historic scene.

This alternative would reestablish the historic patterns of open fields and woodlands within the battlefield and the natural forest using native or hardy species that can depict the form and aesthetics of the historic vegetation. This alternative emphasizes a natural landscape using native vegetation to provide a low-maintenance landscape that is most suitable for regional climatic conditions.

Under Alternative D, there would be a greater level of flexibility with respect to the vegetation treatments compared with Alternatives B and C, as long as the treatments are well adapted to the climatic conditions and result in low maintenance for park staff.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The environmentally preferable alternative is the alternative required by 40 CFR 1505.2(b), to be identified in a record of decision, that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historic, cultural, and natural resources. The “Environmentally Preferable Alternative” is identified upon consideration and weighing by the Responsible Official of long-term environmental impacts against short-term impacts in evaluating what is the best protection of these resources (43 CFR 46.30).

Alternative C is the environmentally preferable alternative for several reasons. Based on the enabling legislation of the park, which is “to preserve and protect the landscapes and resources associated with the battle of Pea Ridge, [and] to interpret the battle as an integral part of the social, political, and military history of the Civil War. . .” (70 Stat. 592), the historic

and cultural resources in the park hold great importance and priority for park management. Alternative C will provide the best balance between the preservation of historic and cultural resources and the protection of the natural resources within the park.

Interpretation of the historic battle under Alternative C will have greater priority than under Alternative D. Alternative C will result in the least disturbance of all action alternatives to existing vegetation and wildlife habitat because much of the fescue fields will remain in fescue and the health of the fields and forests will be a priority.

WHY THE SELECTED ALTERNATIVE WOULD NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

The intensity or severity of impacts resulting from implementing the selected alternative is evaluated using the 10 criteria listed in 40 CFR § 1508.27. Key areas in which impacts were evaluated include vegetation, wildlife, visual resources, cultural resources, visitor experience, park operations, and socioeconomics. As defined in 40 CFR § 1508.27, significance is determined by examining the following criteria.

Impacts that May be Both Beneficial and Adverse; a Significant Effect May Exist Even if the Park Service Believes that on Balance the Effect Would be Beneficial

The selected alternative will result in both beneficial and adverse impacts. In general, the plan provides long-term beneficial effects on vegetation, wildlife, visual resources, cultural resources, visitor experience, park operations, and socioeconomics. Benefits to vegetation will result from continued vegetation management practices and establishing species adapted to current climate conditions. The benefits to wildlife will result from enhanced wildlife habitat by increasing structural and species diversity within the park. The benefits to visual resources and visitor experience will result from enhanced visual character of the vegetation, which will increase the interpretation value, visitor understanding, and visitor enjoyment of the park. Continued enhancement of the historic landscape through the vegetation will benefit the cultural landscape of the park. The benefits to park operations will result from providing more guidance on vegetation management activities and increasing interpretation and education value. The proposed hayfields and woodland thinning may require outside leasing agreements and contractors, which will benefit the local/regional economy.

Adverse impacts on vegetation, wildlife, visual resources, visitor experience, and park operations will be local and parkwide, short- and long-term, and slight, and will result from implementation and maintenance of the proposed vegetation modifications. No specific mitigation measures will be needed to reduce adverse impacts of the selected alternative beyond the best management practices (BMPs) listed in Table 3 of the plan/EA. A summary of effects to resources is found in Table 6 of the plan/EA.

Degree of Effect on Public Health or Safety

Due to the nature of the proposed activities (vegetation management), the selected alternative will not pose a threat to public health and safety. Areas subject to forest thinning and other mechanized activities will be closed to visitors during work periods. In addition, the public will be alerted by signs or barriers.

Unique Characteristics of the Geographic Area such as Proximity to Historic or Cultural Resources, Monument Lands, Prime Farmlands, Wetlands, Wild and Scenic Rivers, or Ecologically Critical Areas

As described in the plan/EA, the selected alternative will not affect prime farmlands, wild and scenic rivers, or ecologically critical areas because those resources do not exist in the park. Buffer zones will ensure the protection of wetlands and historic properties. The NPS will continue to identify potential historic properties within areas of the park proposed for ground disturbance and where previous surveys have not occurred. There will also be no effect on buildings or structures because all are located within treatment exclusion zones.

Degree to Which Effects on the Quality of the Human Environment are Likely to be Highly Controversial

The selected alternative is not highly controversial. No issues arose during public scoping or from park staff during the preparation of the plan/EA. No issues were brought to the park's attention during the public review period that indicated a dispute with either the methods or results of the analysis of topics.

Degree to Which the Possible Effects on the Quality of the Human Environment are Highly Uncertain or Involve Unique or Unknown Risks

No highly uncertain, unique, or unknown risks were identified during the preparation of the plan/EA or the public review period. In addition, the action will not represent a decision in principle about a future consideration.

Degree to Which the Action may Establish a Precedent for Future Actions with Significant Effects or Represents a Decision in Principle about a Future Consideration

The selected alternative will not have a significant effect and does not establish a precedent for future actions with significant effects.

Whether the Action is Related to Other Actions with Individually Insignificant but Cumulatively Significant Impacts

The plan/EA concluded that past, present, and future activities, when coupled with the selected alternative, will have local and parkwide long-term beneficial cumulative effects and local and parkwide long-term slight adverse cumulative effects. No significant adverse cumulative effects were identified. Likely future actions taken individually or collectively will result in no more than local minor adverse cumulative impacts on the human or natural environment.

Degree to Which the Action may Adversely Affect Districts, Sites, Highways, Structures, or Objects Listed on the National Register of Historic Places; or May Cause Loss or Destruction of Significant Scientific, Cultural, or Historical Resources

The selected alternative will have a parkwide long-term direct beneficial effect on cultural landscapes as a result of implementing the vegetation enhancement activities, which will not diminish the overall integrity of the cultural landscape. Past, present, and reasonably foreseeable future actions will have both a long-term direct beneficial impact and long-term slight indirect adverse cumulative effect on cultural landscapes and historic properties by improving the cultural landscape through vegetation management activities. The relocation of Highway 62 to south of the park boundary will have a beneficial direct impact; the indirect adverse impacts from present and future residential and commercial development will diminish the cultural landscape. The NPS initiated consultation with the Arkansas State Historic Preservation Officer (SHPO) with a scoping letter sent on August 13, 2012. No response was received from the SHPO by the end of the January 14, 2013 scoping period. A similar letter was sent to the Advisory Council on Historic Preservation on October 22, 2013, and no response was received. The SHPO also received a copy of the plan/EA for review and comment. The SHPO responded with a letter of concurrence with the NPS finding of no adverse effect on historic properties (if avoidance measures are followed) in a letter dated June 23, 2014. The park will coordinate with the SHPO in the development of mitigation measures for historic and archeological resources, if necessary.

Degree to Which the Action May Adversely Affect an Endangered or Threatened Species or its Critical Habitat

No federally listed plant or animal species are known within the park boundaries. In accordance with Section 7 of the Endangered Species Act, the park initiated consultation with the U.S. Fish and Wildlife Service (USFWS) on August 15, 2012. A response dated September 5, 2012 was received from the USFWS that included a list of threatened and endangered species in Benton County and concurred with the park's determination that the proposed plan/EA would have no effect on listed species. The USFWS also received a copy of the draft plan/EA for review and comment. In an e-mail correspondence dated June 23, 2014, the USFWS responded that it is satisfied that the proposed vegetation management plan will not adversely affect listed species or have significant adverse effects on fish and wildlife resources.

Whether the Action Threatens a Violation of Federal, State, or Local Environmental Protection Law

The selected alternative violates no federal, state, or local environmental protection laws.

MITIGATION MEASURES

A number of mitigating best management practices (BMPs) will be incorporated into the implementation of the selected alternative to minimize the degree and severity of adverse environmental impacts. BMPs include general measures such as signage and proper cleaning of equipment prior to use in the park, and other resource-specific measures to ensure protection of natural and cultural resources in the park. No specific mitigation measures will be needed to reduce adverse impacts of the selected alternative beyond the BMPs listed in Table 3 of the plan/EA.

PUBLIC INVOLVEMENT


During preparation of the plan/EA, the NPS made efforts to involve the public in the planning process, including soliciting information and data from the public and regulatory agencies in a December 19, 2012 press release notifying the public of the plan/EA process. The plan/EA was made available on the NPS Planning, Environment and Public Comment (PEPC) website and by hard copies placed in the park Visitor Center and Pea Ridge, Arkansas, public library for public review and comment between May 22, 2014, and June 21, 2014. A public meeting was held in Garfield, Arkansas, on June 5, 2014, to allow interested parties an opportunity to comment on the plan/EA. The park did not receive any comments from the public that resulted in changes to the plan/EA. The substantive comments that were received during the public review of the plan/EA are addressed in Attachment B.

FINDING OF NO SIGNIFICANT IMPACT


Based on the review of the facts and analysis contained in the plan/EA the NPS has selected Alternative C for implementing the plan/EA at the Pea Ridge National Military Park. Alternative C will not have a significant impact either by itself or in consideration of cumulative impacts. Accordingly, the requirements of NEPA, regulations promulgated by the President's Council on Environmental Quality, provisions of NPS Director's Order 12 and Handbook (Conservation Planning and Environmental Impact Analysis and Decision-Making), and the National Historic Preservation Act have been fulfilled. Furthermore, the selected alternative will not impair park resources or values and will not violate the NPS Organic Act. The selected alternative supports the enabling legislation establishing Pea Ridge National Military Park under the NPS Organic Act with the intended purpose of preserving the scientific and public interests for future generations. An environmental impact statement is not required and will not be prepared for implementation of the selected alternative.

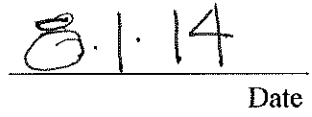
Recommended:


Gregory K. Eads, Acting Superintendent


Date

Approved:


Patricia S. Trap, Acting Regional Director
Midwest Region


Date

ATTACHMENT A
NON-IMPAIRMENT DETERMINATION
PEA RIDGE NATIONAL MILITARY PARK
VEGETATION MANAGEMENT PLAN
AND ENVIRONMENTAL ASSESSMENT

PEA RIDGE NATIONAL MILITARY PARK

VEGETATION MANAGEMENT PLAN AND ENVIRONMENTAL ASSESSMENT

NON-IMPAIRMENT DETERMINATION

In addition to determining the environmental consequences of alternatives to proposed actions, National Park Service (NPS) *Management Policies 2006* and Director's Order-12 require an analysis of potential effects to determine if actions will impair park resources. Impairment is an impact that would, in the professional judgment of the responsible NPS manager, harm the integrity of park resources or values, including opportunities that will otherwise be present for the enjoyment of those resources or values. A determination of impairment is made for particular resource impact topics carried forward and analyzed in the environmental assessment for the selected alternative. The selected alternative for meeting the objectives established in the Pea Ridge National Military Park Vegetation Management Plan and Environmental Assessment (plan/EA), Alternative C, is described in Chapter 2 of the plan/EA. The plan/EA also includes detailed information on existing conditions of resources (plan/EA Chapter 3) and the effects the selected alternative will have on those resources (plan/EA Chapter 4). Existing conditions and effects are briefly summarized in this impairment determination.

The description of park significance in Chapter 1 of the plan/EA was used as a basis for determining if a resource is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- key to the natural or cultural integrity of the park, or to opportunities for enjoyment of the park, or
- identified in the park's general management plan or other relevant NPS planning documents as being of significance.

This impairment determination is based on current NPS guidance on determining impairment of park resources and values. The impairment determination for each resource and value includes:

- a brief description of the condition of the resource;
- whether the resource is necessary to fulfill the purposes for which the park was established;
- whether the resource is key to the natural or cultural integrity of the park or to the opportunity for enjoyment of the park;
- whether the resource is identified as a significant resource in the park's planning documents; and
- a statement as to why the action will or will not result in impairment of the resource, including a discussion of the context, severity, duration, and timing of any impacts, and any mitigation measures, if applicable.

Based on the aforementioned guidelines and basis for determining impairment of park resources and values, a determination of impairment is made for the following resource impact topics carried forward and analyzed in the plan/EA for the selected alternative: vegetation, wildlife, visual resources, and cultural resources.

VEGETATION

The existing vegetation that resembles historic vegetation patterns contribute to the park's historic character and are necessary to fulfill the park's purpose of preserving and interpreting the history of the area, are key to the cultural and natural integrity of the park, and are considered significant park resources.

The selected alternative will modify and manage the vegetation to present an agrarian and natural landscape that visually represents what would have existed in 1862. However, the species composition may differ from the exact composition in 1862 to allow for ease of maintenance and to adapt to changes in climatic conditions. Of the 463 acres of existing fields, 296 acres of grassland fields (currently in fescue) will be modified to 11 acres of rotational crops for interpretive value, 284 acres of native grass prairie, and 0.63 acre of interpretive areas. About 168 acres of the existing fescue fields will be maintained as-is. The open woodlands (900 acres) and forests (2,471 acres) will be reestablished to the historic character, density, and form, but not necessarily the specific species. The existing Eastern Red Cedar Woodlands and Forests will be reduced to 4 to 10 acres. Six acres of orchards will be planted with species similar in character to the historic vegetation, but not necessarily the specific species, to be more adaptable to present and future conditions.

The selected alternative will result in both short- and long-term beneficial and adverse direct impacts on vegetation. Parkwide, the vegetation will establish to similar form and function, although not necessarily species composition, as the vegetation in 1862. Overall, the proposed actions from the selected alternative will result in a parkwide short-term slight adverse impact and a long-term beneficial impact on vegetation. The selected alternative will have a beneficial effect by increasing visitor understanding of the Battle of Pea Ridge and promoting species adapted to current climate conditions. The Open Woodlands and Arkansas Highlands Forest will take time to reestablish, and thinning will have a parkwide short-term direct slight adverse impact on vegetation by reducing vegetative cover.

Because the adverse effects of the selected alternative will be short-term and slight, the adverse effects will not modify the vegetation enough to reduce its role in fulfilling the park's purpose of preserving or interpreting the history of the area. Thus, the selected alternative will not impair vegetation resources because the park's vegetation will remain in the same or better condition and will contribute to the enjoyment of current and future generation of visitors.

WILDLIFE

The dense forests, open fields, and prairies in the park provide year-round habitat for a variety of wildlife. Common species in the park include white-tailed deer (*Odocoileus*

virginianus); coyote (*Canis latrans*); red fox (*Vulpes vulpes*); opossum (*Didelphis marsupialis*); woodchuck (*Marmota monax*); eastern cottontail rabbit (*Sylvilagus floridana*); several species of squirrels, mice, and voles; and numerous migratory songbirds.

The wildlife within the park contribute to the park's historic character and are necessary to fulfill the park's purpose of preserving and interpreting the history of the area, are key to the natural integrity of the park, and are considered significant park resources.

The selected alternative will modify and manage the vegetation to present an agrarian and natural landscape that visually represents what would have existed in 1862. This will have both short-term adverse and long-term beneficial impacts to wildlife. Thinning the forests, woodlands, and eastern red cedar will allow for an increase in understory development and diversity of species and reduce the amount of nonnative species in the park. This will directly improve wildlife habitat in the park by increasing the variety of species and structural diversity. Thinning the forests, woodlands, and eastern red cedar will directly reduce the food source for birds and mammals in the park and reduce nesting and roosting cover for birds, including chipping sparrows, American robins, song sparrows, and other birds. Since this will occur slowly over time, the birds and mammals will likely find food sources and nesting cover from nearby trees in the park. Modifications of the fields to agricultural crops will decrease grassland habitat for wildlife by 11 acres, which will have a parkwide direct slight adverse impact on wildlife. Approximately 284 acres of existing grassland fields will be enhanced with native grasses, which will provide additional wildlife habitat and will be beneficial for wildlife over the long term.

Overall, the selected alternative will result in both a parkwide long-term beneficial impact and a long-term slight adverse impact on wildlife. The slight adverse impacts could change how wildlife contribute to the visitor experience by reducing existing grassland habitat; however, the long-term beneficial impacts on wildlife also could lead to a beneficial impact on the visitor experience in viewing wildlife and visitor understanding of the Battle of Pea Ridge by improving wildlife habitat and providing habitat similar to what would have existed in 1862.

The adverse effects of the selected alternative on wildlife will be slight and will not substantially alter the overall wildlife, wildlife habitat, or natural processes within the park or region. Therefore these adverse effects on wildlife will not diminish its role in fulfilling the park's purpose of preserving or interpreting the history of the area or the natural integrity of the park. Thus, the selected alternative will not impair wildlife resources because the modifications to vegetation will allow species and habitat to remain essentially unchanged.

VISUAL RESOURCES

About 90% of the Civil War battlefield where fighting took place is protected within the park. Protecting such a large portion of an original battlefield is uncommon among Civil War parks in the national park system, and this protection is essential to the unique visual character of the park. Much of the land that is now protected in the park underwent extensive changes from the time of the battle until the park was established in 1956. Much of the land that now constitutes the park was historically used for agriculture, raising livestock, and homestead

sites. These land uses, along with practices of fire suppression and logging, have combined to alter the landscape and influence the character of the park relative to its historic appearance.

Visual resources on the battlefield are important in the visitor's understanding of the battle events. Visual resources include replica artillery; fencing; historic structures; and historic fields, roads, and trails. Visual resources are necessary to fulfill the park's purpose of preserving and interpreting the Battle of Pea Ridge and are key to the cultural integrity of the park.

Under the selected alternative, vegetation will be modified and managed to present an agrarian and natural landscape that visually represents what would have existed in 1862. Although not all the vegetation species will be the same species present in 1862, the reestablishment of the structural and visual character of the vegetation that was historically present will provide a beneficial impact on visual resources because the vegetation will provide visitors with an understanding of the Battle of Pea Ridge. Modifications to the landscape will be especially apparent from tour stops with large vistas of the battlefield, such as the East Overlook. Visual resources will be enhanced from the proposed maintenance of trails and the Tour Road. These improved views will have a long-term beneficial effect on visual resources of the site. Local short-term direct adverse impacts will occur during implementation activities from equipment and potential road closures, which could obstruct views and viewsheds. Because visual resources will be improved and, therefore, will better contribute to fulfilling the park's purpose for current and future generations of visitors, the selected alternative will not impair visual resources.

CULTURAL RESOURCES

The park's 4,300 acres encompass about 90% of the actual battlefield. At the time of the battle, the area included the agricultural community of Leetown, which included a number of farms and homes bounded by woodlands. The natural elements of the cultural landscape include agricultural fields, orchards, open prairie, and woodlands. Topography and drainages played a crucial role in the outcome of the battle and, therefore, are part of the cultural landscape. Because the existing structures that were present during the 1862 battle were integral to troop movements and the outcome of the battle, the structures have been evaluated as contributing and noncontributing elements of the National Register-listed military park.

The park's cultural resources, which are necessary to fulfill the purpose of the park, are key to the cultural integrity of the park and are considered a significant park resource.

The selected alternative will have no effect on known archeological sites, and buffer zones would ensure the protection of historic properties. The NPS will continue to identify potential historic properties within areas of the park proposed for ground disturbance and where previous surveys have not taken place. There will also be no effect on buildings or structures since all are located within treatment exclusion zones. The effects on the cultural landscape will be parkwide, long-term, direct, and beneficial from the continued enhancement of the historic landscape. Because the changes to the cultural landscape will be beneficial, there will be no impairment of cultural resources. The cultural resources for

which the park was created will remain in good or improved condition and will be enjoyed by current and future generations.

ATTACHMENT B
NATIONAL PARK SERVICE RESPONSES TO
PUBLIC AND AGENCY COMMENTS
PEA RIDGE NATIONAL MILITARY PARK
VEGETATION MANAGEMENT PLAN
AND ENVIRONMENTAL ASSESSMENT

ATTACHMENT B

NATIONAL PARK SERVICE RESPONSES TO PUBLIC AND AGENCY COMMENTS

PUBLIC COMMENT OPPORTUNITIES

A press release providing notice of the availability of the plan/EA and public meeting information was issued May 22, 2014. Letters were sent to the park's list of interested parties the week of May 18, 2014. The public review plan/EA was posted on the NPS's Planning, Environment, and Public Comment (PEPC) website and hard copies were placed in the park Visitor Center and Pea Ridge, Arkansas public library for public review and comment between May 22, 2014 and June 21, 2014. A public meeting was held in Garfield, Arkansas on June 5, 2014 to allow interested parties an opportunity to comment on the plan/EA. The public was encouraged to submit comments regarding the plan/EA through the PEPC website or by mailing a letter to the park.

PUBLIC COMMENTS

Concern Statement: One commenter asked if the NPS is taking into consideration climate change and whether removing red oaks would allow other species to flourish.

Representative Quotes

Corr. ID: 1

Comment ID: 384281

"Are you taking into consideration climate then and now? Can the trees that were there in 1862 still flourish today? It would be tragic to cut out all the red oaks to find that the others can't thrive."

NPS Response

Based on research sources described on pages 9-17 of the Vegetation Management Plan and Environmental Assessment, the historic vegetation that existed in 1862 is still viable in 2014. Climate change is discussed on page 29 of the plan/EA. The life of the plan/EA is intended as a 20-year implementation plan. Impacts from climate change to the natural and cultural resources in the park could occur over time; however, the selected alternative will incorporate flexible management techniques, using the best available technology, for seed and planting choices and management of other climate-sensitive resources. Details for on-the-ground implementation are contained in Appendix B of the plan/EA.

Concern Statement: One commenter expressed concern about the removal of natural oak and hickory forest in undeveloped areas and the effect on recreational visitors.

Representative Quotes

Corr. ID: 2

Comment ID: 384283

"I have a strong objection to the removal of areas of the oak and hickory forest that have naturally developed over the years. We need more trees and natural area as urban sprawl devours our environment."

NPS Response

The NPS understands that many local residents visit the park's undeveloped areas to hike, bike, and ride horses as respite from urban development. The plan/EA lays out a strategy to thin the overgrown forests to a more healthy density. The oak and hickory forest will not disappear, and selective thinning will allow the forests to regenerate at a more natural rate.

Concern Statement: One commenter supported Alternative D because it is affordable and beneficial to the native wildlife.

Representative Quotes

Corr. ID: 3

Comment ID: 384284

"In my opinion, Alternative D is a plan that is affordable, beneficial to our native wildlife, and looks to the future as an opportunity to greatly improve the neglected cedar choked areas of your large and beautiful park."

NPS Response

Although Alternative D is not the preferred alternative, the preferred alternative will be affordable and beneficial to wildlife as well, as described in the plan/EA.

AGENCY AND TRIBAL COMMENTS

The U.S. Fish and Wildlife Service (USFWS) Arkansas Field Office responded to the plan/EA in an email dated June 23, 2014 concurring with the NPS determination that the proposed plan/EA will have no effect on listed species.

The Department of Arkansas Heritage (SHPO) responded to the plan/EA in a letter dated June 23, 2014. The SHPO concurred that Alternative C appears to offer the best solution for meeting the park goals and were in agreement with the proposed procedures for preventing impacts on historic properties during the project. The SHPO agreed that if the plans for avoiding impacts on archeological deposits are followed, the proposed project will have no adverse effect on historic properties.

The United Keetoowah Band of Cherokee Indians in Oklahoma responded to the plan/EA in an email dated May 28, 2014, indicating they have no objection or comments on the project. The Quapaw Tribe of Oklahoma responded in a letter dated June 23, 2014, that they concur

with the Arkansas Historic Preservation Program in urging the NPS to consider archeological resources when developing the plan.

